

IN THE CLAIMS

The listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently amended) In a digital communications network, a method comprising:

monitoring a plurality of links to determine state changes of the links between a first inverse multiplexing for asynchronous (IMA) group and a second IMA group;

enforcing an inverse multiplexing for asynchronous transfer mode identification (IMA-ID) check when an insufficient links state is reached, such that a link for which a near end IMA-ID matches a far end IMA-ID is maintained and a link for which a near end IMA-ID does not match a far end IMA-ID is disabled;

relaxing the IMA-ID check when all the links are in an error state; and

re-enforcing an IMA-ID check when at least one link of the plurality of links recovers from an error state to resynchronize the first IMA group and the second IMA group on a per group basis.

2. (Canceled)

3. (Currently amended) In a digital communications network, a method comprising:

restarting an existing inverse multiplexing for asynchronous transfer mode (IMA) groups to resynchronize a first IMA group and a second IMA group on a per group basis,

comprising:

learning an IMA group ID of a far end IMA group;

~~learning~~ storing the IMA group ID in a memory such that the IMA group ID is made persistent;

using only links matching the IMA group ID; and

placing non-matching links in an unusable state.

4. (Currently amended) The method of claim 3, wherein learning an IMA group ID further comprises:

resynchronizing the ~~IMA group~~ first IMA group and the second IMA group; and  
extracting the IMA group ID from a first connected link.

5. (Canceled)

6. (Original) The method of claim 3, wherein using only matching links further comprises screening IMA links having an IMA group ID that are involved in unintentional IMA group restarts for a matching stored IMA group ID.

7. (Original) The method of claim 3, further comprising looping back all links.

8. (Original) The method of claim 3, further comprising marking all links as unusable.

9. (Currently amended) In a digital communications network, a system comprising:

means for monitoring a plurality of links to determine state changes of the links  
between a first inverse multiplexing for asynchronous (IMA) group and a second IMA group;

means for enforcing an inverse multiplexing for asynchronous transfer mode  
identification (IMA-ID) check when an insufficient links state is reached such that a link for  
which a near end IMA-ID matches a far end IMA-ID is maintained and a link for which a near  
end IMA-ID does not match a far end IMA-ID is disabled;

means for relaxing the IMA-ID check when all the links are in an error state; and

means for re-enforcing an IMA-ID check when at least one link of the plurality of links  
recovers from an error state to resynchronize the first IMA group and the second IMA group  
on a per group basis.

10. (Canceled)

11. (Currently amended) In a digital communications network, a system comprising:

means for restarting an existing inverse multiplexing for asynchronous transfer mode  
(IMA) groups to resynchronize a first IMA group and a second IMA group on a per group  
basis, comprising:

means for learning an IMA group ID of a far end IMA group;  
means for storing the IMA group ID in a memory such that the IMA group ID  
is made persistent;  
means for using only links matching the IMA group ID; and  
means for placing non-matching links in an unusable state.

12. (Currently amended) The system of claim 11, wherein learning an IMA group ID further comprises:

means for resynchronizing the ~~IMA group~~ first IMA group and the second IMA group;  
and  
means for extracting the IMA group ID from a first connected link.

13. (Canceled)

14. (Original) The system of claim 11, wherein using only matching links further comprises screening IMA links having an IMA group ID that are involved in unintentional IMA group restarts for a matching stored IMA group ID.

15. (Original) The system of claim 11, further comprising looping back all links.

16. (Original) The system of claim 11, further comprising marking all links as unusable.

17. (Currently amended) A computer-readable medium having stored thereon a plurality of instructions, said plurality of instructions when executed by a computer, cause said computer to perform the method comprising:

monitoring a plurality of links to determine state changes of the links between a first inverse multiplexing for asynchronous (IMA) group and a second IMA group;

enforcing an inverse multiplexing for asynchronous transfer mode identification (IMA-ID) check when an insufficient links state is reached such that a link for which a near end IMA-ID matches a far end IMA-ID is maintained and a link for which a near end IMA-ID does not match a far end IMA-ID is disabled;

relaxing the IMA-ID check when all the links are in an error state; and

re-enforcing an IMA-ID check when at least one link of the plurality of links recovers from an error state to resynchronize the first IMA group and the second IMA group on a per group basis.

18. (Canceled)

19. (Currently amended) ~~In a digital communications network, a method comprising~~ A computer-readable medium having instructions thereon, which when executed by a processor, cause the processor to perform the following comprising:

restarting an existing inverse multiplexing for asynchronous transfer mode (IMA) groups to resynchronize a first IMA group and a second IMA group on a per group basis, comprising:

- learning an IMA group ID of a far end IMA group;
- storing the IMA group ID in a memory such that the IMA group ID is made persistent;
- using only links matching the IMA group ID; and
- placing non-matching links in an unusable state.

20. (Currently amended) The computer-readable medium of claim 19 having stored thereon additional instructions, said additional instructions when executed by a computer for learning an IMA group ID, cause said computer to further perform:

- resynchronizing the ~~IMA group~~ first IMA group and the second IMA group; and
- extracting the IMA group ID from a first connected link.

21. (Canceled)

22. (Original) The computer-readable medium of claim 19 having stored thereon additional instructions, said additional instructions when executed by a computer for using only matching links, cause said computer to further perform screening IMA links having an IMA group ID that are involved in unintentional IMA group restarts for a matching stored IMA group ID.

23. (Original) The computer-readable medium of claim 19 having stored thereon additional instructions, said additional instructions when executed by a computer, cause said computer to further perform looping back all links.

24. (Original) The computer-readable medium of claim 19 having stored thereon additional instructions, said additional instructions when executed by a computer, cause said computer to further perform marking all links as unusable.

25. (Currently amended) A line card for use in a switch, comprising:  
a central processing unit (CPU);  
a system controller connected to the central processing unit;  
random access memory (RAM) connected to the system controller; and  
a group restarter connected to the CPU, controller, and RAM wherein the group restarter restarts an inverse multiplexing for asynchronous transfer mode (IMA) group and wherein the processor monitors a plurality of links to determine state changes of the links and enforces an inverse multiplexing for asynchronous transfer mode identification (IMA-ID) check when an insufficient links state is reached such that a link for which a near end IMA-ID matches a far end IMA-ID is maintained and a link for which a near end IMA-ID does not match a far end IMA-ID is disabled to resynchronize a first IMA group and a second IMA group on a per group basis.

26. (Canceled)

27. (Previously Presented) The switch of claim 25 wherein the processor relaxes the IMA-ID check when all the links are in an error state and re-enforces an IMA-ID check when at least one link of the plurality of links recovers from an error state.

28. (Canceled)